

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION VII

IN THE MATTER OF

ALUMINUM COMPANY OF AMERICA,  
Riverdale, Iowa,

Respondent.

Proceeding under Section 106  
(a) of the Comprehensive  
Environmental Response,  
Compensation, and Liability  
Act of 1980, 42 U.S.C. §9606  
(a).

Docket No. 84-F-0004

~~ADMINISTRATIVE~~  
ORDER ON CONSENT

JURISDICTION

This Order on Consent is entered into by the Aluminum Company of America (ALCOA) and the United States Environmental Protection Agency (EPA), the latter by virtue of the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §9606(a), and delegated to the EPA by Executive Order 12316 dated August 14, 1981, 46 Federal Register 42237 et seq. (1981), and further delegated to the undersigned official of EPA by EPA Delegation No. 14-14, effective March 31, 1983. Notice of this Order has been given to the State of Iowa, Department of Water, Air and Waste Management.

FINDINGS OF FACT

1. ALCOA is the owner and operator of a facility commonly referred to as the ALCOA Davenport Works, located in Riverdale, Scott County, Iowa, and more specifically in Sections 23, 24, 25 and 26 of Township 78N, Range 4E of the 5th principal meridian latitude 41° 32' and longitude 90° 27'.

2. ALCOA is a Pennsylvania corporation qualified to do business in the State of Iowa.

3. In 1956, ALCOA began utilization of an unlined waste oil surface impoundment at the Davenport Works primarily for the storage of oil waste from manufacturing operations and in particular for oily sludge from an alum/lime oily waste treatment plant. At its greatest extent, the impoundment covered approximately 14 acres in area and varied from 8 to 20 feet in depth. By 1981, the surface impoundment had been reduced to an area of approximately two acres.

4. The surface impoundment was located approximately 150 to 200 feet from and northwest of the Mississippi River and is bounded on the south and west by a man-made clay dike and core installed to bedrock as a flood protection measure. The area inside the dike around the impoundment consists of fill material overlying a sandy silt, which in turn overlays a limestone bedrock. Depth to bedrock varies from 5 to 10 feet at the north end of the existing impoundment and from 15 to 20 feet at the south end.

5. From 1956 until 1979, ALCOA placed a variety of solid wastes, including oil and grease, solvents, pickling fluids, and paint coating wastes in the impoundment. Some of these wastes contained polychlorinated biphenyls (PCBs).

6. In 1979, ALCOA, having discovered the fact that approximately 3.5 million gallons of waste oil in the surface impoundment contained PCBs in varying concentrations, voluntarily initiated a remedial program designed to ensure the PCB contaminated waste oil would be properly disposed of in a manner consistent with 40 C.F.R. Part 761.

7. Pursuant to the above-mentioned remedial program, ALCOA undertook the following actions:

(a) from August 2, 1980, through June 7, 1981, removed all pumpable waste oil and sludge from the surface impoundment and shipped said material to either Technical Services, Inc., of Atkinson, Illinois, or Chemical Waste Management, Inc., in Emelle, Alabama;

(b) subsequent to the removal of the pumpable waste and sludge, began a process of in-situ fixation whereby remaining unpumpable sludge in the surface impoundment was solidified with waste cement kiln dust for the purpose of stabilizing the contaminated sludge to prevent leaching of PCBs from said sludge; and

(c) in January 1981, retained a consulting firm to conduct an investigation and assessment regarding the potential of groundwater contamination which may have resulted from the release of hazardous substances from the surface impoundment.

8. In February 1981, groundwater monitoring wells were installed around the periphery of the surface impoundment by ALCOA's consultant and, subsequently, groundwater samples were collected and analyzed. The location of the wells and the sample results are contained in a report entitled "First Annual Comprehensive Report on Groundwater at the ALCOA - Davenport Waste Disposal Site" (the Report), which was submitted by letter dated February 28, 1983, from George Pratt, ALCOA, to Morris Kay, EPA, Region VII.

9. The Report summarized the findings from the hydrogeologic investigation of the site and concluded that an estimated 15,300 gallons of groundwater (in both the shallow and bedrock aquifers) containing approximately 11.5 gallons of oil has been and is currently being released per day from the site and that PCBs are present in both the oil and groundwater discharging from the site.

10. Unless additional remedial actions are implemented the above-described release of PCB-contaminated oils from the site will continue. Such releases will continue to contaminate the groundwater at the site and may contaminate waters of the Mississippi River. The Mississippi River downstream of ALCOA is used for fishing, recreation and as a source of drinking water.

#### CONCLUSIONS OF LAW

11. ALCOA is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. §9601(21).

12. PCBs are "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. §9601(14).

13. The surface impoundment at the ALCOA Davenport Works is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. §9601(9).

14. The disposal and/or depositing of PCBs into the surface impoundment by ALCOA as described herein and the leaching of said PCBs from the surface impoundment are "releases" as defined by Section 101(22) of CERCLA, 42 U.S.C. §9601(22).

#### DETERMINATION

15. Based on the foregoing Findings of Fact and Conclusions of Law, EPA has determined that the actual or threatened release of PCBs from the ALCOA Davenport Works may present an imminent and substantial endangerment to the public health or welfare or the environment. EPA has further determined that the actions specified in the following Order are consistent with the National Contingency Plan and are necessary to ascertain the nature and extent of such hazard and to protect the public health, welfare, and the environment.

ORDER

16. ALCOA and EPA agree and ALCOA is HEREBY ORDERED AND DIRECTED to undertake the activities described below pursuant to the schedules established therein to further define, contain, mitigate, and/or terminate the actual or threatened release of PCBs from the facility. Remedial actions and monitoring to be undertaken by ALCOA pursuant to this Order shall be accomplished in the Initial Remedial Phase and shall include Oil Recovery, Oil Disposal and Oil Recovery Effectiveness Monitoring. If additional remedial and/or monitoring actions are required at the facility to prevent the release of hazardous substances into the environment, this Order on Consent may be amended accordingly or additional Orders may be issued.

Initial Remedial Phase

17. Within 30 days of the effective date of this Order, ALCOA shall submit to EPA a detailed Initial Remedial Action Plan (Plan) for the recovery and safe management of the PCB-contaminated oil leaching from the site. This initial remedial phase is deemed to be consistent with the National Contingency Plan. The Plan shall be designed to prevent the continued release of oil and PCBs from the site and shall provide at a minimum a detailed description of the following:

A. Oil Recovery

1) Design specifications for an oil recovery trench, or other oil recovery system including dimensions, construction, materials, location, liner specifications, liner installation and maintenance;

2) Design, installation and maintenance specifications for a system to preclude the infiltration and diversion of surface water from entering the waste present in the surface impoundment;

3) Method of withdrawing oil from the oil recovery trench or other oil recovery system and transferring for storage, treatment or disposal;

4) Method for storing oil on-site pending ultimate treatment or disposal;

5) Estimated period of operation of the oil recovery system;

6) Disposal of soil or other materials including any washwater generated in the excavation of the trench (or other oil recovery system) from the cleaning or decontamination of equipment or materials onsite;



7) Site safety plan; and

8) Schedule for the implementation and operation of the Plan and the submission of quarterly reports to EPA during operation of the Oil Recovery System and monthly reports during its installation.

B. Oil Disposal

Regarding the disposal of oil recovered from the trench, the Plan shall include at a minimum the following:

- 1) Sampling and analysis of oils recovered from the trench;
- 2) Treatment or disposal methods of oils containing more than 500 ppm PCBs, for oils containing 50 to 500 ppm PCBs and for oils containing less than 50 ppm PCBs; and
- 3) Methods for transporting any oils recovered from the trench.

C. Monitoring the Oil Recovery System

- 1) Schedule for regular monitoring of the effectiveness of the oil recovery system including measurement of the oil thickness in the existing monitoring wells;
- 2) Method for measuring oil thickness;
- 3) Method for measuring water elevations in monitoring wells relative to the potential for groundwater mounding upgradient of the trench; and
- 4) Schedule for submission of quarterly reports to EPA.

D. Sample Analyses and Sample Management

For any oil samples collected pursuant to this Order the Plan shall address the following:

- 1) Field sample management protocol, including chain-of-custody, transportation and storage of samples;
- 2) Laboratory sample management protocol, including storage of samples and chain-of-custody;
- 3) Chemical parameters of sample analyses and limits of detection;

- 4) Analytical procedures and methods; and
- 5) Laboratory quality control/quality assurance program.

#### Other Remedial Actions

18. Paragraphs 17A through 17D, of the Order describe initial remedial and monitoring actions to be implemented by ALCOA under the Initial Remedial Action Plan to be submitted to EPA within 30 days of issuance of this Order. The analytical data on environmental samples collected, and other information, may provide the basis for a determination for the need of additional remedial actions not described herein. If such additional remedial actions are required, this Order on Consent may be amended accordingly, or additional Orders may be issued.

#### EPA Review

19. Following its receipt of any plan, or any refinement or revision thereof, required to be submitted by ALCOA to EPA pursuant to this Order on Consent, EPA shall review such plan and notify ALCOA in writing within 60 days of EPA's receipt of such plan, refinement or revision thereof, of its approval or disapproval of the plan, or any part or further refinement or revision thereof. In the event of any disapproval, EPA shall specify in detail both the deficiencies of the plan and the reason therefore. The plan, or any part or further refinement or revision thereof, which is approved by EPA and performance of which is not contingent upon determining or proceeding with a disapproved part of the plan shall, on the date of such approval, become final for purposes of this Order.

#### Resolution of Disputes

20. As to any plan or any part or further refinement or revision thereof, a notice of disapproval of which is given ALCOA by EPA as provided herein, ALCOA shall, within thirty (30) days of such notice either:

(a) Modify and submit to EPA the plan or portion thereof as revised to eliminate the deficiencies specified by EPA, in which case the disputed plan or part or further refinement or revision thereof shall become final for purposes of this Order upon written notification of EPA's approval; or

(b) Confer with EPA in an attempt to achieve agreement on the disputed plan or any part or further refinement or revision thereof, in which case the period of thirty (30) days provided under Paragraph 20(a) of this Order may be extended by mutual written agreement between the parties. If agreement can be achieved by such conference, it will be memorialized in

a joint memorandum between the parties and the disputed plan, or any part or further refinement or revision thereof, shall become final for purposes of this Order on the effective date of such memorandum.

(c) If agreement concerning the disputed plan, or any part or further refinement or revision thereof, cannot be achieved by procedures outlined in either paragraph 20(a) or 20(b) preceding, ALCOA shall implement the disputed plan, or any part or further refinement or revision thereof, as required by EPA in accordance with any time schedules therein.

(d) None of the foregoing provisions shall prohibit either party from pursuing appropriate judicial or other remedies as provided by law on the disputed portions of the plan. This Order is defined to be a final Order for enforcement purposes under Section 106(b) of CERCLA, 42 U.S.C. §9606(b).

#### Plan Implementation

21. (a) Upon written approval of the plan, or any part or further refinement or revision thereof, as originally proposed or as amended, ALCOA shall implement the plan in accordance with the approved terms and schedules therein.

(b) Within sixty (60) days of completion of all work specified in the plan, excepting the monitoring requirements for the oil recovery system, ALCOA shall submit to EPA a full and accurate report regarding all activities required by paragraphs 17(A) and 17(B) preceding and approved by EPA.

(c) ALCOA shall report and submit all findings, including copies of analytical results, pertaining to the oil recovery system monitoring to EPA on a regular basis as specified in the Plan and approved by EPA.

#### Public Comment/Effective Date

22. Within ten (10) days of the date of issuance of this Order on Consent, EPA shall announce the availability of this Order on Consent to the public for review and comment. EPA shall accept comments from the public for a period of thirty days after such announcement. If sufficient interest warrants, as determined by EPA, a public meeting will be held. At the end of the comment period, EPA shall review all such comments and shall either:

(a) determine that the Order on Consent should be made effective in its present form, in which case the Respondent shall be so notified in writing. The Order on Consent shall become effective on the date of such notification; or

(b) determine that modification of the Order on Consent is necessary, in which case the Respondent will be informed as to the nature of all required changes. If the Respondent agrees to the modifications, the Order shall be so modified and shall become effective upon signature of both parties.

#### Miscellaneous

23. ALCOA agrees, for purposes of complying with the terms of this Order on Consent, to provide access to its facility to the employees, contractors, consultants, or other representatives of EPA at all reasonable times. Furthermore, ALCOA shall retain copies of all available charts, maps, letters, memoranda, invoices, shipping manifests or other records or documents considered by EPA to be germane to the subject matter of this Order and shall make said records available to EPA at all reasonable times, if requested by EPA.

24. Absent negligent or willful misconduct on the part of the United States or any agency thereof, neither the United States Government nor any agency thereof shall be liable for any injuries or damages to persons or property resulting from acts or omissions of ALCOA, its officers, directors, employees, agents, servants, receivers, trustees, successors, or assigns, or of any persons, including but not limited to firms, corporations, subsidiaries, contractors or consultants in carrying out activities pursuant to this Order, nor shall the U.S. Government or any agency thereof be held out as a party to any contract entered into by ALCOA in carrying out activities pursuant to this Order.

25. Upon request prior to sampling, ALCOA shall provide EPA with a split of all samples taken pursuant to this Order.

26. All actions undertaken pursuant to this Order by ALCOA or its duly authorized representatives shall be so done in accordance with all applicable federal, state and local statutes and regulations.

27. The provisions of this Order shall be binding on the employees, successors and assigns of both parties.

28. ALCOA and EPA may at any time by mutual agreement modify this Order as necessary. Any such modification shall be in writing and signed and executed by representatives of each party.

29. Nothing contained in this Order shall be construed to prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, or from taking other legal action or equitable action it deems appropriate or necessary with respect

to the ALCOA Davenport Works facility or from requiring future activities at the site.

30. The parties hereto have reviewed this Order on Consent and consent to the requirements set forth herein. The parties are desirous of resolving this matter without resort to litigation. Nothing in this Order is or shall be construed to be an admission by ALCOA of any past or present violations of law.

31. Three copies of each plan and at least one copy of monitoring reports, status reports and the final report for the initial remedial action shall be mailed to:

Mr. David V. Crawford  
Air and Waste Management Division  
U.S. Environmental Protection Agency  
Region VII  
324 East 11th Street  
Kansas City, Missouri 64106

32. Whenever, under the terms of this Order on Consent, notice is required to be given, or a report, plan or other document is required to be forwarded by one party to another, it shall be directed to the individuals at the address specified below, unless those individuals or their successors give notice in writing to the other party of another individual designated to receive such communication:


Mr. David V. Crawford  
Air and Waste Management Division  
U.S. Environmental Protection Agency  
Region VII  
324 East 11th Street  
Kansas City, Missouri 64106

George O. Pratt, Jr.  
Manager, Safety, Environmental and  
Energy  
Aluminum Company of America,  
Davenport Works  
Post Office Box 3567  
Davenport, Iowa 52808

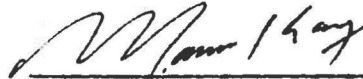
33. The provisions of this Order on Consent shall terminate upon Alcoa's receipt of written notice from EPA that all the requirements of this Order on Consent have been successfully completed.

PENALTIES

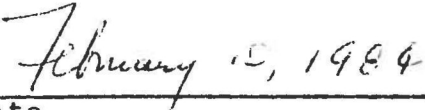
34. Failure to comply with any of the provisions contained herein may subject ALCOA to the provisions of Sections 106(b) and/or 107(c)(3) of CERCLA, 42 U.S.C. §§9606(b) and/or 9607(c)(3).



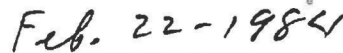
R. R. Hoffman  
Vice-President  
Aluminum Company of America



Morris Kay  
Regional Administrator  
U.S. EPA, Region VII



Date



Date